



Alpha Magnetic Spectrometer
NASA / DOE

Alpha Magnetic Spectrometer Weekly Reports

October 29, 2004



National Aeronautics and
Space Administration

Upcoming Events:

- Electronics TIM and Uninterruptible Power Supply (UPS) CDR - November 1-5, 2004 – Taiwan
- STA Vacuum Case Delivery (on dock at STADCO) - November 30, 2004
- AMS-02 Integration Meeting - December 7-9, 2004 - CERN (Geneva)
- Flight Vacuum Case Delivery (on dock at STADCO) - December 15, 2004
- Thermal Control System (TCS) Delta Critical Design Review (Δ CDR) - December 13-14, 2004 - CERN (Geneva)
- AMS General TIM - January 10-14, 2005 – KSC
- Tracker Thermal Control System (TTCS) PDR - January 2005, CDR - April 2005
- AMS-02 Phase II Safety Review - March 2005 - JSC

Upcoming Tests:

- AMS-02 Avionics Functional Interface Test (FIT) - January 2005 – KSC
- O-Ring Test Fixture (OTF) Vacuum Test - Suspended - J13
- Interface Plate Static Test - Date TBD - Location TBD
- Lower Joint Static Test - Date TBD - Location TBD
- STA Acoustic Test - Date TBD - ESTEC - Noordwijk, Netherlands (Schedule under review)
- STA Sine Sweep Test - Date TBD - INFN - Terni, Italy (Schedule under review)
- Full Assembly Modal & Static Tests - Date TBD - IABG - Munich, Germany

Status:

- ***The LMSO Vacuum Case (VC) Lead traveled to Los Angeles for a status meeting on the VC and shipping fixture manufacturing at STADCO. LMSO is continuing to emphasize to the vendor the importance of meeting the contractual obligations, including keeping current commitments to schedule.
- ***The LMSO AMS-02 Engineering Team developed a master list of action items from last week's Technical Interchange Meeting (TIM) with the collaboration and provided it to all the relevant group leads. Inputs from



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these actions, as well as information gathered at the TIM, are currently being used to update the Phase II Hazard Reports.

- A solid model of the major cryovalve gas system components (storage vessel, valve box, regulators etc.) for the AMS-02 Cryomagnet System was received from Space Cryomagnetics Limited (SCL). SCL is proposing mounting the components to the Unique Support Structure (USS) -02. LMSO engineers conducted a preliminary assessment of the proposal and model, and prepared a series of questions to discuss with SCL.
- Efforts are continuing to develop the formal Integration Plan for the AMS-02 Payload. Draft versions of all subcomponent integration plans developed at CERN in September were reviewed with the hardware developers.
- Vacuum Case Milestones

<u>Contract Deliverable</u>	<u>Due Date</u>	<u>Status</u>
First Article Conical Flange Complete	July 2004	(Machining complete, metal finish in work)
Weld Fixture Complete	August 2004	(Currently in use for rolled ring weld tests)
STA Support Rings Complete	September 2004	(Machining complete, metal finish in work)
Weld Development Complete	September 2004	(Flat plate qualification test in work)
STA Conical Flanges Complete	September 2004	(Machining complete, metal finish in work)
Flight Support Rings Complete	November 2004	
First Article Weld Complete	November 2004	
Flight Conical Flanges Complete	November 2004	
Shipping Fixture Complete	October 2004	(CDR complete)
STA Line Drill Operations Complete	November 2004	
STA Match Drill Procedure Complete	November 2004	
STA Weld Complete (for proof test @ STADCO)	November 2004	
STA Vacuum Case Delivery (on dock at STADCO)	December 15, 2004	(Revised based on latest discussions with STADCO)
Flight Vacuum Case Delivery (on dock at STADCO)	December 30, 2004	(Revised based on latest discussions with STADCO)